

In the Claims

Please amend the claims as follows:

Claims 1-22 (Canceled)

23. (previously presented) A method for conditioning cooled used moulding sand retaining moulding sand binder in a mixer (1), wherein the cooled used moulding sand is heated to at least a minimum temperature, moisturized by providing water or water vapor through holes in an agitator and subsequently cooled in the mixer from the minimum temperature using the effect of a vacuum

24. (previously presented) A method according to Claim 23, wherein a desired minimum temperature T_{\min} is determined, the starting temperature T_{ist} of the moulding sand is determined, and the moulding sand is heated when $T_{\text{ist}} < T_{\min}$.

25. (previously presented) A method according to Claim 23, wherein the cooled used moulding sand is heated before it is placed in the mixer (1).

26. (previously presented) A method according to Claim 23, wherein the cooled used moulding sand is heated in combination with unused moulding sand to at least the minimum temperature in the mixer (1) prior to application of the vacuum.

27. (previously presented) A method according to Claim 23, wherein the moulding sand is heated with the aid of hot air or microwaves.

28. (previously presented) A method according to Claim 23, wherein the moulding sand is heated by addition of hot water.

29. (previously presented) A method according to Claim 23, wherein the moulding sand is heated by addition of hot water vapour (12).

30. (previously presented) A method according to Claim 29, wherein the temperature of the moulding sand is increased to at least the minimum temperature T_{\min} by addition of hot water vapour (12).

31. (previously presented) A method according to Claim 23, wherein processing water (4) is added to obtain a desired minimum moisture.

32. (previously presented) A method according to Claim 30, wherein the moisture content of the moulding sand is sensed (14) enough water (4) is added as is necessary for cooling of the moulding sand in a vacuum and so that a quantity of water remains in the moulding sand for the moulding sand to obtain a desired moisture content in finished sand.

33. (previously presented) A method according to Claim 29, wherein water in vapour or liquid form added for heating the moulding sand is at least in part additionally used for moistening the moulding sand.

34. (previously presented) A method according to Claim 33, wherein excess water in the moulding sand is regulated by evaporation in a vacuum to a desired final moisture.

35. (previously presented) A method according to Claim 29, wherein the amount of water vapour or water added to the moulding sand to heat it is determined dependent upon the temperature T_{ist} of the moulding sand and the desired minimum temperature T_{\min} .

36. (previously presented) A method according to Claim 29, wherein the amount of water vapour added to the moulding sand to heat it is obtained by setting a pressure in the mixer such

that a boiling temperature of the water at the set pressure corresponds to the desired minimum temperature, and water vapour is supplied until the pressure increases or the temperature in a suction line (6) shows an accelerated increase.

37. (previously presented) A method according to Claim 23, wherein hot water or hot water vapour is supplied to the mixer below the surface of the moulding sand to heat the sand to at least the minimum temperature.

38. (previously presented) A method according to Claim 23, wherein moulding sand below the minimum temperature is heated by mixing with hot moulding sand.

39. (currently amended) Apparatus for conditioning moulding sand comprising a mixing container, a rotatable mixing agitator and a mixing agitator drive suitable for mixing moulding sand in the mixing container, means for feeding components to be mixed to the mixer, means for supplying hot water or hot water vapour to components in the mixing chamber through a plurality of holes in the agitator facing away from a direction of rotation of the agitator, ~~valves~~ apparatus for stopping the flows of hot water and vapour to the mixing chamber, means for vacuum sealing the mixing container, means for providing a vacuum in the mixing chamber after the flows are stopped to cool the contents of the mixing chamber and remove moisture by vacuum evaporation, and means for removing mixed components from the mixing chamber.

40. (previously presented) Apparatus according to Claim 39, wherein the means for providing a vacuum can provide a vacuum to below the vapor pressure of water.

41. (previously presented) Apparatus according to Claim 40, wherein the agitator comprises fins, blades or a wall scraper .

42. (previously presented) Apparatus according to Claim 40, wherein the mixing container does not rotate, and orifices are provided through a wall of the container for the addition of hot water vapour and/or water.

43. (previously presented) Apparatus according to Claim 39, wherein the mixing container rotates.

44. (previously presented) A method according to Claim 23, wherein the vacuum is below the vapor pressure of water.

45. (cancelled)